

Title (en)
HIGH CONDUCTION FLEXIBLE FIN COOLING MODULE

Publication
EP 0454603 A3 19911106 (EN)

Application
EP 91480028 A 19910221

Priority
US 50350390 A 19900330

Abstract (en)
[origin: EP0454603A2] An apparatus (10) for removing heat from a heat generating device (12) . The apparatus (10) includes at least one heat conductive finned thermal device insert (16) including a base having at least one first fin (17), and preferably having a plurality of first fins (17), on a first surface and a second surface which is flat and a heat conductive second thermal device (18), preferably a cooling hat, having a plurality of second fins (20). The first fins (17) are interspersed with the second fins (20). At least one of the first and second fins (17,20) is of a thermally conductive, flexible material so that a gap otherwise existing between the interspersed fins (17,20) is substantially eliminated. Finally, at least a portion of the first and second fins (17,20) are biased against one another. <IMAGE>

IPC 1-7
H01L 23/433; **H01L 23/40**; **H01L 23/367**

IPC 8 full level
H01L 23/36 (2006.01); **H01L 23/433** (2006.01)

CPC (source: EP US)
H01L 23/4338 (2013.01 - EP US); **H01L 2924/0002** (2013.01 - EP US); **H01L 2924/09701** (2013.01 - EP US)

C-Set (source: EP US)
H01L 2924/0002 + **H01L 2924/00**

Citation (search report)
• [YD] EP 0344084 A2 19891129 - IBM [US]
• [X] EP 0140119 A2 19850508 - IBM [US]
• [XD] EP 0071709 A2 19830216 - IBM [US]
• [A] EP 0286876 A2 19881019 - IBM [US]
• [A] EP 0169270 A1 19860129 - HITACHI LTD [JP]
• [X] IBM TECHNICAL DISCLOSURE BULLETIN. vol. 32, no. 5B, October 1989, NEW YORK US page 7 "THERMAL CONDUCTION MODULE WITH INTERLEAVED PLATES HAVING VARIABLY ALIGNED OR NON-ALIGNED WINDOWS TO COMPENSATE FOR VARIATIONS IN CHIP HEIGHT"

Cited by
GB2493019A; EP2634798A1; EP2247172A1; US8089767B2

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US 5014117 A 19910507; EP 0454603 A2 19911030; EP 0454603 A3 19911106; JP 2778019 B2 19980723; JP H04225265 A 19920814

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